

## CLAIMS

1. A lock mechanism for an opening and closing member,  
comprising:
  - 5 an opening and closing member that is provided on an apparatus frame and that can be opened and closed, and  
at least two lock member sets for sustaining a state in which the opening and closing member is closed with respect to the apparatus frame,
  - 10 wherein each of the at least two lock member sets is constituted by a secured member that is provided on the opening and closing member, and a bearing member that is provided on the apparatus frame and that is to elastically secure the secured member, and wherein an elastic force when the secured member in any one  
15 lock member set of the at least two lock member sets is secured to the bearing member is set to be greater than that of the other lock member set.
2. The lock mechanism for an opening and closing member according  
20 to claim 1,  
wherein the secured members in the lock member sets are provided on an opening and closing end side of the opening and closing member.
- 25 3. The lock mechanism for an opening and closing member according

to claim 2,

wherein the secured member in the any one lock member set is disposed at a substantially center position in a direction perpendicular to an opening and closing direction of the opening  
5 and closing member.

4. The lock mechanism for an opening and closing member according to claim 3,

wherein the at least two lock member sets are three lock member  
10 sets.

5. The lock mechanism for an opening and closing member according to claim 1,

wherein a relative space between a front end of the secured  
15 member and the bearing member in the any one lock member set is set to be smaller than relative spaces between a front end of the secured member and the bearing member in the other lock member set, and wherein the any one secured member is secured to the bearing member first when closing the opening and closing member.

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6. The lock mechanism for an opening and closing member according to claim 1,

wherein the secured members are formed in one piece with the opening and closing member by integrally molding.

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7. The lock mechanism for an opening and closing member according to claim 1,

wherein the bearing members are formed in one piece with the apparatus frame by integrally molding.

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8. An image forming apparatus, comprising:

an image forming apparatus frame provided with a document platen on which a document is placed, an optical system for creating image data by reading the document placed on the document platen,  
10 an image bearing member for bearing a latent electrostatic image corresponding to the image data read by the optical system, a developing device for forming a toner image by changing, with toner, the latent electrostatic image on the image bearing member into a visible image, and a transferring device for transferring the  
15 toner image on the image bearing member, which has been changed into a visible image with the developing device, to paper,

an opening and closing member that is provided on the image forming apparatus frame and that can be opened and closed, and

at least two lock member sets for sustaining a state in which  
20 the opening and closing member is closed with respect to the image forming apparatus frame,

wherein each of the at least two lock member sets is constituted by a secured member that is provided on the opening and closing member, and a bearing member that is provided on the  
25 image forming apparatus frame and that is to elastically secure

the secured member, and wherein an elastic force when the secured member in any one lock member set of the at least two lock member sets is secured to the bearing member is set to be greater than that of the other lock member set.

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